

(a) a nucleotide sequence encoding an amino acid sequence shown by SEQ ID NO: 2;

(b) a nucleotide sequence shown by SEQ ID NO: 1;

(c) a nucleotide sequence encoding an amino acid sequence shown by SEQ ID NO: 4;

(d) a nucleotide sequence shown by SEQ ID NO: 3; and

*F1 could*

(e) a nucleotide sequence encoding an amino acid sequence of about a 4.4 Kbp gene obtainable from a plant, wherein said gene of about 4.4 Kbp is amplifiable with a combination of a PCR primer selected from the group consisting of SEQ ID NO: 7, SEQ ID NO: 8, and SEQ ID NO: 13 and a PCR primer selected from the group consisting of SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 14, and SEQ ID NO: 15.

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*F2*

Claim 20. (Twice Amended) The isolated polynucleotide according to claim 18, which is isolated from maize plant (Zea mays L).

Claim 21. (Three times Amended) The isolated polynucleotide according to claim 19, which is isolated from maize plant (Zea mays L).

Claim 22. (Twice Amended) A plasmid comprising a polynucleotide encoding an aldehyde oxidase enzyme, wherein said

wherein said polynucleotide has a sequence selected from the group consisting of:

(a) a nucleotide sequence encoding an amino acid sequence shown by SEQ ID NO: 2;

(b) a nucleotide sequence shown by SEQ ID NO: 1;

*F2 candidate*  
(c) a nucleotide sequence encoding an amino acid sequence shown by SEQ ID NO: 4;

(d) a nucleotide sequence shown by SEQ ID NO: 3; and

(e) a nucleotide sequence encoding an amino acid sequence of about a 4.4 Kbp gene obtainable from a plant, wherein said gene of about 4.4 Kbp is amplifiable with a combination of a PCR primer selected from the group consisting of SEQ ID NO: 7, SEQ ID NO: 8, and SEQ ID NO: 13 and a PCR primer selected from the group consisting of SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 14, and SEQ ID NO: 15.

*F3*  
Claim 25. (Amended) The transformed host cell according to claim 23, wherein the host cell is a plant cell.

*F4*  
Claim 26. (Twice Amended) A process of constructing an expression plasmid which comprises ligating in a functional manner

(1) a promoter capable of functioning in a plant cell upstream from,

(2) a polynucleotide encoding an aldehyde oxidase enzyme, wherein said enzyme oxidizes an aldehyde compound to a carboxylic acid, and wherein said polynucleotide has a sequence selected from the group consisting of:

(a) a nucleotide sequence encoding an amino acid sequence shown by SEQ ID NO: 2;

(b) a nucleotide sequence shown by SEQ ID NO: 1;

(c) a nucleotide sequence encoding an amino acid sequence shown by SEQ ID NO: 4;

(d) a nucleotide sequence shown by SEQ ID NO: 3; and

(e) a nucleotide sequence encoding an amino acid sequence of about a 4.4 Kbp gene obtainable from a plant, wherein said gene of about 4.4 Kbp is amplifiable with a combination of a PCR primer selected from the group consisting of SEQ ID NO: 7, SEQ ID NO: 8, and SEQ ID NO: 13 and a PCR primer selected from the group consisting of SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 14, and SEQ ID NO: 15, and

(3) a terminator functional in a plant downstream from the polynucleotide (2).

Claim 27. (Twice Amended) An expression plasmid comprising:

(1) a promoter capable of functioning in a plant cell,

(2) a polynucleotide encoding an aldehyde oxidase enzyme, wherein said enzyme oxidizes an aldehyde compound to a carboxylic acid, and wherein said polynucleotide has a sequence selected from the group consisting of:

(a) a nucleotide sequence encoding an amino acid sequence shown by SEQ ID NO: 2;

(b) a nucleotide sequence shown by SEQ ID NO: 1;

(c) a nucleotide sequence encoding an amino acid sequence shown by SEQ ID NO: 4;

(d) a nucleotide sequence shown by SEQ ID NO: 3; and

(e) a nucleotide sequence encoding an amino acid sequence of about a 4.4 Kbp gene obtainable from a plant, wherein said gene of about 4.4 Kbp is amplifiable with a combination of a PCR primer selected from the group consisting of SEQ ID NO: 7, SEQ ID NO: 8, and SEQ ID NO: 13 and a PCR primer selected from the group consisting of SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 14, and SEQ ID NO: 15, and

(3) a terminator capable of functioning in a plant which are ligated in a functional manner and in the order described above.

Claim 28. (Twice Amended) A process for controlling production of an aldehyde oxidase in a transformed host cell which comprises

introducing into a host cell an expression plasmid comprising:

(1) a promoter functional in a plant cell upstream from,

*24 control*  
(2) a polynucleotide encoding an aldehyde oxidase enzyme, wherein said enzyme oxidizes an aldehyde compound to a carboxylic acid, and having a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding an amino acid sequence shown by SEQ ID NO: 2;

(b) a nucleotide sequence shown by SEQ ID NO: 1;

(c) a nucleotide sequence encoding an amino acid sequence shown by SEQ ID NO: 4;

(d) a nucleotide sequence shown by SEQ ID NO: 3;  
and

(e) a nucleotide sequence encoding an amino acid sequence of about a 4.4 Kbp gene obtainable from a plant, wherein said gene of about 4.4 Kbp is amplifiable with a combination of a PCR primer selected from the group consisting of SEQ ID NO: 7, SEQ ID NO: 8, and SEQ ID NO: 13 and a PCR primer selected from the group consisting of SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 14, and SEQ ID NO: 15, and

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(3) a terminator functional in a plant and downstream from the polynucleotide (2), which are ligated in a functional manner to transform said host cell whereby the production of aldehyde oxidase of the transformed host is controlled.

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Please add the following new claims:

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31. (New) An isolated polynucleotide encoding an aldehyde oxidase enzyme, wherein said polynucleotide has a nucleotide sequence encoding an amino acid sequence shown by SEQ ID NO:2.

32. (New) An isolated polynucleotide encoding an aldehyde oxidase enzyme, wherein said polynucleotide has a nucleotide sequence encoding an amino acid sequence shown by SEQ ID NO:4.

33. (New) An isolated polynucleotide encoding an aldehyde oxidase enzyme, wherein said polynucleotide has a nucleotide sequence shown by SEQ ID NO: 1 or 3.

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